

## Failure Investigation Report – Kiantone Tank Line Leak, West Seneca New York

DOT US Department of Transportation  
PHMSA Pipeline and Hazardous Materials Safety Administration  
OPS Office of Pipeline Safety Eastern Region

**Principal Investigator** Terry Wasielewski, NYSDPS  
**Senior Accident Investigator** Michael Yazemboski, PHMSA  
**Region Director** Byron Coy  
**Date of Report** 3/28/2016  
**Subject** Failure Investigation Report – Kiantone Pipeline Company – Cracked 2 inch NPS Drain - Crude Oil Leak, West Seneca Terminal, NY

### **Operator, Location, & Consequences**

**Date of Failure** 08/25/2015  
**Commodity Released** Heavy Crude Oil  
**City/County & State** West Seneca, New York  
**OpID & Operator Name** 10250, Kiantone Pipeline Company  
**Unit # & Unit Name** #761, West Seneca Terminal  
**SMART Activity #** 151195  
**Milepost / Location** 550 Meyers Road, West Seneca, NY 14224  
**Type of Failure** Leak  
**Fatalities** 0  
**Injuries** 0  
**Description of area impacted** Leak at base of Tank 703 inside a diked area which is inside the fenced in West Seneca Pipeline terminal  
**Total Costs** \$42,430

# Failure Investigation Report – Kiantone Tank Line Leak, West Seneca New York

## **Executive Summary**

On August 25, 2015, the New York State Department of Public Service (NYSDPS) received notification of a product release at the Kiantone Pipeline Tank Facility located in West Seneca, NY. The leak was identified by a Kiantone employee at approximately 10:00 during a routine patrol. The leak was located near the base of Tank 703 within a diked area. Approximately 5 gallons of heavy crude oil was released. The cause of the incident was a cracked Weldolet branch connection fitting on a 2-inch NPS pump line. A bolted repair sleeve was installed, and the line was pressurized and monitored for 24 hours before being backfilled and returned to service. There were no evacuations, injuries, deaths, or property damage associated with this incident.



## **System Details**

Kiantone Pipeline Corporation is owned and operated by the United Refining Company (URC) of Warren, PA. Its purpose is to receive, store, blend and transport crude oil for the URC refinery located in Warren.

The Kiantone pipeline is 78 miles long, connecting West Seneca Terminal, near Buffalo NY, to the refinery at Warren, PA, through a tank farm 3.4 miles from the refinery.

West Seneca Terminal is the custody transfer point for ownership of the crude entering Kiantone. This terminal contains crude oil meters, pumps and tanks, and serves as the originating station for Kiantone Pipeline. Terminal operations are coordinated by Kiantone Pipeline staff, along with personnel from the Warren Lab Control Center.

Oil enters the terminal and flows into the incoming meter manifold, where the oil volume is measured by positive displacement meters. Two of the four meters are in use during normal operations.

Oil flows to one of the three aboveground storage tanks (701, 702, or 703). Tank 701 contains sweet crude, 702 contains asphaltic crude, and 703 contains sour crude.

Each tank has an incoming and outgoing line, with a motor-operated valve on each. The tanks have hardware and software level alarms, and a Varec automatic tank gauge. The tanks are surrounded by dikes, which are designed to contain oil in the event of a spill. Each dike has a drain valve to release any accumulated water.

The failure was on a 2-inch drain line on the bottom of a 12-inch NPS line which travels from the sample building to Tank 703.

## **Events Leading up to the Failure**

Tank 703 was out of service for an internal inspection. The input line to the tank had a blind flange on it, and was closed in with crude in it at a pressure of approximately 15 psig. The leak located at the ground interface was discovered by an inspector.

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## Emergency Response

Approximately 5 gallons of heavy crude oil was spilled on the ground. Kiantone implemented their OPA plan for a liquid spill. Kiantone shut down the West Seneca facility, and immediately notified PHMSA through NRC 1126637. They also contacted the New York State Department of Public Service (NYSDPS), along with all other State and Federal agencies outlined in their emergency plan.

## Summary of Return-to-Service

Kiantone conducted an investigation to determine the root cause of the crude oil release. Kiantone contracted a local excavation company and an environmental contractor to assist in the cleanup of the area. A 20 foot by 10 foot area around the 12-inch pipeline was excavated to a depth of approximately 7 feet.

Kiantone removed the surrounding soil, applied absorbents and removed any excess oil with a vacuum truck. The soil was stored in a plastic lined container and removed per New York Department of Environmental Conservation (NYSDEC) regulations.

The leak was identified on a 2-inch Weldolet on the bottom of the 12-inch NPS pumpout line. The Weldolet was cracked and the crude oil was leaking from the crack. Kiantone installed a modified 12-inch Plidco clamp over the cracked section that included the 2 inch weldolet. Kiantone pressurized the line to 20 psig and then monitored the repair for 24 hours. The clamp was coated per Kiantone’s cathodic protection procedures. The area was then backfilled with fly ash to within 18 inches of grade and left to settle for 24 hours. Once settled, the line was covered with fill.

## Investigation Details

Kiantone conducted an internal investigation of this event, as documented in their Form 2.2.1 (Appendix F). This form documents their review of a number of different factors involved including:

[REDACTED]



Control Room Factors – Kiantone reviewed controller actions and activities and found no evidence of them being a causative factor to this event. This review included CR procedures, fatigue issues and CR equipment.

HCA Impacts – Kiantone’s Integrity Management plan (IMP) identifies this pipeline facility as a “could affect” segment for both high population and drinking water HCAs. The release was contained within the diked area around the tank and no impacts were noted.

Physical Analysis – Kiantone’s in-house subject matter experts conducted a physical examination of the cracked piping before the repair clamp was installed. They attributed the pipe failure to natural force damage resulting from years of freeze/thaw cycles. The cracked piping was not removed from the system or sent out for metallurgical analysis.

## Findings and Contributing Factors

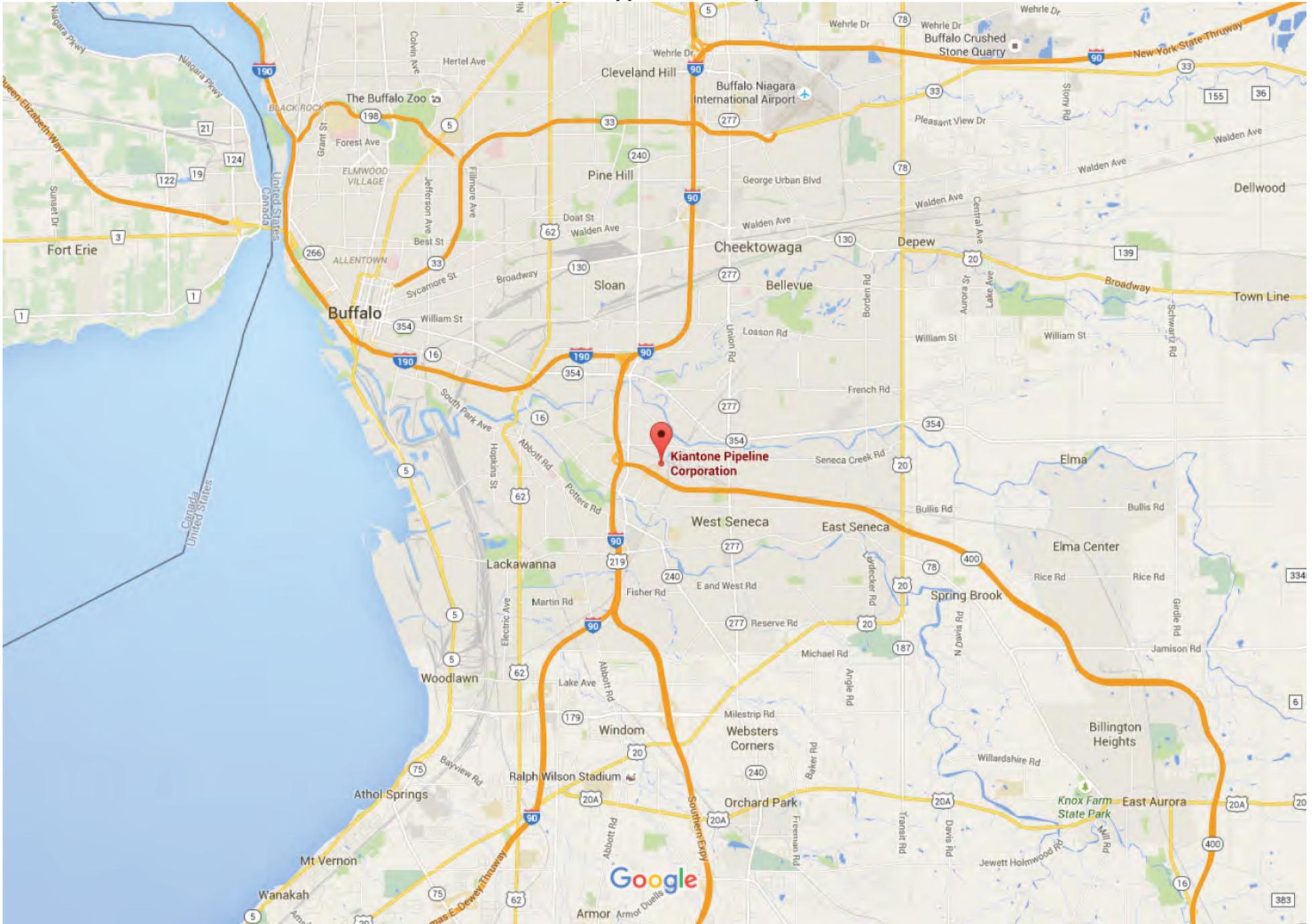
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The apparent cause of this failure was natural force damage. The distorted shape of the piping is consistent with long term force actions. There were no indications of a pressure exceedance, corrosion or mechanical damage. Control room records and procedures were reviewed and ruled out as a causative factor. No metallurgical analysis was conducted.

### **Appendices**

- A Maps
- B Photos
- C Incident Report Form 7000.1
- D NRC Report 1126637
- E Kiantone Failure Investigation Report

151195 Appendix A - Maps



Map data ©2016 Google 2 mi



Imagery ©2016 Google, Map data ©2016 Google 500 ft



Imagery ©2016 Google, Map data ©2016 Google 100 ft

**151195 Appendix B - Photos**

PHOTO #1: Crack on the 2" pumpout line, connected to the 12" tank line at the 6 o'clock position



Photo by Terry Wasielewski, NYSDPS, 08/25/2015

Photo #2 – Installed repair clamp



Photo by Terry Wasielewski, NYSDPS, 08/25/2015

151195 Appendix B - Photos

Photo #3 – Incident location in reference to Tank 703



Photo by Terry Wasielewski, NYSDPS, 08/25/2015

**151195 Appendix C - Incident Report 7000.1**

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed \$100,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed \$1,000,000 as provided in 49 USC 60122.		OMB NO: 2137-0047 EXPIRATION DATE: 07/31/2015
 U.S Department of Transportation Pipeline and Hazardous Materials Safety Administration	<b>Original Report Date:</b>	09/17/2015
	<b>No.</b>	20150331 - 20746 ----- (DOT Use Only)

**ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2137-0047. All responses to the collection of information are mandatory. Send comments regarding this burden or any other aspect of this collection of information, including suggestions for reducing the burden to: Information Collection Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue, SE, Washington, D.C. 20590.

**INSTRUCTIONS**

**Important:** Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions, you can obtain one from the PHMSA Pipeline Safety Community Web Page at <http://www.phmsa.dot.gov/pipeline/library/forms>.

**PART A - KEY REPORT INFORMATION**

Report Type: (select all that apply)	Original:	Supplemental:	Final:
	Yes		
Last Revision Date:			
1. Operator's OPS-issued Operator Identification Number (OPID):	10250		
2. Name of Operator	KIANTONE PIPELINE CORP		
3. Address of Operator:			
3a. Street Address	PO BOX 780		
3b. City	WARREN		
3c. State	Pennsylvania		
3d. Zip Code	16365		
4. Local time (24-hr clock) and date of the Accident:	08/25/2015 10:15		
5. Location of Accident:			
Latitude:	(b) (7)(F)		
Longitude:			
6. National Response Center Report Number (if applicable):	1126637		
7. Local time (24-hr clock) and date of initial telephonic report to the National Response Center (if applicable):	08/25/2015 11:57		
8. Commodity released: (select only one, based on predominant volume released)	Crude Oil		
- Specify Commodity Subtype:			
- If "Other" Subtype, Descr be:			
- If Biofuel/Alternative Fuel and Commodity Subtype is Ethanol Blend, then % Ethanol Blend:			
- If Biofuel/Alternative Fuel and Commodity Subtype is Biodiesel, then Biodiesel Blend e.g. B2, B20, B100			
9. Estimated volume of commodity released unintentionally (Barrels):	.70		
10. Estimated volume of intentional and/or controlled release/blowdown (Barrels):			
11. Estimated volume of commodity recovered (Barrels):	.70		
12. Were there fatalities?	No		
- If Yes, specify the number in each category:			
12a. Operator employees			
12b. Contractor employees working for the Operator			
12c. Non-Operator emergency responders			
12d. Workers working on the right-of-way, but NOT associated with this Operator			
12e. General public			
12f. Total fatalities (sum of above)			
13. Were there injuries requiring inpatient hospitalization?	No		
- If Yes, specify the number in each category:			
13a. Operator employees			
13b. Contractor employees working for the Operator			
13c. Non-Operator emergency responders			
13d. Workers working on the right-of-way, but NOT associated with this Operator			
13e. General public			

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13f. Total injuries (sum of above)	
14. Was the pipeline/facility shut down due to the Accident?	Yes
- If No, Explain:	
- If Yes, complete Questions 14a and 14b: (use local time, 24-hr clock)	
14a. Local time and date of shutdown:	08/25/2015 12:23
14b. Local time pipeline/facility restarted:	08/26/2015 20:50
- Still shut down? (* Supplemental Report Required)	
15. Did the commodity ignite?	No
16. Did the commodity explode?	No
17. Number of general public evacuated:	0
18. Time sequence (use local time, 24-hour clock):	
18a. Local time Operator identified Accident - effective 7- 2014 changed to "Local time Operator identified failure":	08/25/2015 10:15
18b. Local time Operator resources arrived on site:	08/25/2015 10:15

**PART B - ADDITIONAL LOCATION INFORMATION**

1. Was the origin of the Accident onshore?	Yes
	<i>If Yes, Complete Questions (2-12)</i>
	<i>If No, Complete Questions (13-15)</i>
<b>- If Onshore:</b>	
2. State:	New York
3. Zip Code:	14224
4. City	West Seneca
5. County or Parish	Erie
6. Operator-designated location:	Survey Station No.
	Specify: Facility
7. Pipeline/Facility name:	West Seneca Terminal
8. Segment name/ID:	West Seneca Terminal
9. Was Accident on Federal land, other than the Outer Continental Shelf (OCS)?	No
10. Location of Accident:	Totally contained on Operator-controlled property
11. Area of Accident (as found):	Underground
	Specify: Under soil
	- If Other, Descr be:
	Depth-of-Cover (in): 36
12. Did Accident occur in a crossing?	No
- If Yes, specify type below:	
- If Bridge crossing –	
	Cased/ Uncased:
- If Railroad crossing –	
	Cased/ Uncased/ Bored/drilled
- If Road crossing –	
	Cased/ Uncased/ Bored/drilled
- If Water crossing –	
	Cased/ Uncased
	- Name of body of water, if commonly known:
	- Approx. water depth (ft) at the point of the Accident:
	- Select:
<b>- If Offshore:</b>	
13. Approximate water depth (ft) at the point of the Accident:	
14. Origin of Accident:	
- In State waters - Specify:	
	- State:
	- Area:
	- Block/Tract #:
	- Nearest County/Parish:
- On the Outer Continental Shelf (OCS) - Specify:	
	- Area:
	- Block #:
15. Area of Accident:	

**PART C - ADDITIONAL FACILITY INFORMATION**

1. Is the pipeline or facility:	Interstate
2. Part of system involved in Accident:	Onshore Terminal/Tank Farm Equipment and Piping
- If Onshore Breakout Tank or Storage Vessel, Including Attached Appurtenances, specify:	
3. Item involved in Accident:	Auxiliary Piping (e.g. drain lines)
- If Pipe, specify:	
3a. Nominal diameter of pipe (in):	

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3b. Wall thickness (in):	
3c. SMYS (Specified Minimum Yield Strength) of pipe (psi):	
3d. Pipe specification:	
3e. Pipe Seam , specify:	
- If Other, Descr be:	
3f. Pipe manufacturer:	
3g. Year of manufacture:	
3h. Pipeline coating type at point of Accident, specify:	
- If Other, Descr be:	
- If Weld, including heat-affected zone, specify. If Pipe Girth Weld, 3a through 3h above are required:	
- If Other, Descr be:	
- If Valve, specify:	
- If Mainline, specify:	
- If Other, Descr be:	
3i. Manufactured by:	
3j. Year of manufacture:	
- If Tank/Vessel, specify:	
- If Other - Descr be:	
- If Other, descr be:	
4. Year item involved in Accident was installed:	1976
5. Material involved in Accident:	Carbon Steel
- If Material other than Carbon Steel, specify:	
6. Type of Accident Involved:	Leak
- If Mechanical Puncture – Specify Approx. size:	
in. (axial) by	
in. (circumferential)	
- If Leak - Select Type:	Other
- If Other, Descr be:	mechanical damage
- If Rupture - Select Orientation:	
- If Other, Describe:	
Approx. size: in. (widest opening) by	
in. (length circumferentially or axially)	
- If Other – Describe:	
<b>PART D - ADDITIONAL CONSEQUENCE INFORMATION</b>	
1. Wildlife impact:	No
1a. If Yes, specify all that apply:	
- Fish/aquatic	
- Birds	
- Terrestrial	
2. Soil contamination:	Yes
3. Long term impact assessment performed or planned:	No
4. Anticipated remediation:	No
4a. If Yes, specify all that apply:	
- Surface water	
- Groundwater	
- Soil	
- Vegetation	
- Wildlife	
5. Water contamination:	No
5a. If Yes, specify all that apply:	
- Ocean/Seawater	
- Surface	
- Groundwater	
- Drinking water: <i>(Select one or both)</i>	
- Private Well	
- Public Water Intake	
5b. Estimated amount released in or reaching water (Barrels):	
5c. Name of body of water, if commonly known:	
6. At the location of this Accident, had the pipeline segment or facility been identified as one that "could affect" a High Consequence Area (HCA) as determined in the Operator's Integrity Management Program?	Yes
7. Did the released commodity reach or occur in one or more High Consequence Area (HCA)?	Yes
7a. If Yes, specify HCA type(s): <i>(Select all that apply)</i>	
- Commercially Navigable Waterway:	
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's	

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Integrity Management Program?	
- High Population Area:	Yes
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	Yes
- Other Populated Area	
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	
- Unusually Sensitive Area (USA) - Drinking Water	Yes
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	Yes
- Unusually Sensitive Area (USA) - Ecological	
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	
8. Estimated cost to Operator – effective 12-2012, changed to "Estimated Property Damage":	
8a. Estimated cost of public and non-Operator private property damage paid/reimbursed by the Operator – effective 12-2012, "paid/reimbursed by the Operator" removed	\$ 0
8b. Estimated cost of commodity lost	\$ 30
8c. Estimated cost of Operator's property damage & repairs	\$ 10,000
8d. Estimated cost of Operator's emergency response	\$ 16,400
8e. Estimated cost of Operator's environmental remediation	\$ 16,000
8f. Estimated other costs	\$ 0
Descr be:	
8g. Estimated total costs (sum of above) – effective 12-2012, changed to "Total estimated property damage (sum of above)"	\$ 42,430
<b>PART E - ADDITIONAL OPERATING INFORMATION</b>	
1. Estimated pressure at the point and time of the Accident (psig):	15.00
2. Maximum Operating Pressure (MOP) at the point and time of the Accident (psig):	150.00
3. Describe the pressure on the system or facility relating to the Accident (psig):	Pressure did not exceed MOP
4. Not including pressure reductions required by PHMSA regulations (such as for repairs and pipe movement), was the system or facility relating to the Accident operating under an established pressure restriction with pressure limits below those normally allowed by the MOP?	No
- If Yes, Complete 4.a and 4.b below:	
4a. Did the pressure exceed this established pressure restriction?	
4b. Was this pressure restriction mandated by PHMSA or the State?	
5. Was "Onshore Pipeline, Including Valve Sites" OR "Offshore Pipeline, Including Riser and Riser Bend" selected in PART C, Question 2?	No
- If Yes - (Complete 5a. – 5f below) effective 12-2012, changed to "(Complete 5.a – 5.e below)"	
5a. Type of upstream valve used to initially isolate release source:	
5b. Type of downstream valve used to initially isolate release source:	
5c. Length of segment isolated between valves (ft):	
5d. Is the pipeline configured to accommodate internal inspection tools?	
- If No, Which physical features limit tool accommodation? (select all that apply)	
- Changes in line pipe diameter	
- Presence of unsuitable mainline valves	
- Tight or mitered pipe bends	
- Other passage restrictions (i.e. unbarred tee's, projecting instrumentation, etc.)	
- Extra thick pipe wall (applicable only for magnetic flux leakage internal inspection tools)	
- Other -	
- If Other, Descr be:	
5e. For this pipeline, are there operational factors which significantly complicate the execution of an internal inspection tool run?	
- If Yes, Which operational factors complicate execution? (select all that apply)	

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- Excessive debris or scale, wax, or other wall buildup	
- Low operating pressure(s)	
- Low flow or absence of flow	
- Incompatible commodity	
- Other -	
- If Other, Descr be:	
5f. Function of pipeline system:	> 20% SMYS Regulated Trunkline/Transmission
6. Was a Supervisory Control and Data Acquisition (SCADA)-based system in place on the pipeline or facility involved in the Accident?	Yes
If Yes -	
6a. Was it operating at the time of the Accident?	Yes
6b. Was it fully functional at the time of the Accident?	Yes
6c. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident?	No
6d. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident?	No
7. Was a CPM leak detection system in place on the pipeline or facility involved in the Accident?	No
- If Yes:	
7a. Was it operating at the time of the Accident?	
7b. Was it fully functional at the time of the Accident?	
7c. Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident?	
7d. Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident?	
8. How was the Accident initially identified for the Operator?	Local Operating Personnel, including contractors
- If Other, Specify:	
8a. If "Controller", "Local Operating Personnel", including contractors", "Air Patrol", or "Ground Patrol by Operator or its contractor" is selected in Question 8, specify:	Contractor working for the Operator
9. Was an investigation initiated into whether or not the controller(s) or control room issues were the cause of or a contributing factor to the Accident?	No, the Operator did not find that an investigation of the controller(s) actions or control room issues was necessary due to: (provide an explanation for why the Operator did not investigate)
- If No, the Operator did not find that an investigation of the controller(s) actions or control room issues was necessary due to: (provide an explanation for why the operator did not investigate)	Cause of leak was unrelated to pipeline operations or controller actions
- If Yes, specify investigation result(s): (select all that apply)	
- Investigation reviewed work schedule rotations, continuous hours of service (while working for the Operator), and other factors associated with fatigue	
- Investigation did NOT review work schedule rotations, continuous hours of service (while working for the Operator), and other factors associated with fatigue	
Provide an explanation for why not:	
- Investigation identified no control room issues	
- Investigation identified no controller issues	
- Investigation identified incorrect controller action or controller error	
- Investigation identified that fatigue may have affected the controller(s) involved or impacted the involved controller(s) response	
- Investigation identified incorrect procedures	
- Investigation identified incorrect control room equipment operation	
- Investigation identified maintenance activities that affected control room operations, procedures, and/or controller response	
- Investigation identified areas other than those above:	
Descr be:	
<b>PART F - DRUG &amp; ALCOHOL TESTING INFORMATION</b>	
1. As a result of this Accident, were any Operator employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?	No
- If Yes:	
1a. Specify how many were tested:	

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1b. Specify how many failed:	
2. As a result of this Accident, were any Operator contractor employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations? - If Yes:	No
2a. Specify how many were tested:	
2b. Specify how many failed:	
<b>PART G – APPARENT CAUSE</b>	
<i>Select only one box from PART G in shaded column on left representing the APPARENT Cause of the Accident, and answer the questions on the right. Describe secondary, contributing or root causes of the Accident in the narrative (PART H).</i>	
<b>Apparent Cause:</b>	G2 - Natural Force Damage
<b>G1 - Corrosion Failure</b> - only one sub-cause can be picked from shaded left-hand column	
<b>Corrosion Failure – Sub-Cause:</b>	
<b>- If External Corrosion:</b>	
1. Results of visual examination: - If Other, Descr be:	
2. Type of corrosion: <i>(select all that apply)</i>	
- Galvanic	
- Atmospheric	
- Stray Current	
- Microbiological	
- Selective Seam	
- Other:	
- If Other, Descr be:	
3. The type(s) of corrosion selected in Question 2 is based on the following: <i>(select all that apply)</i>	
- Field examination	
- Determined by metallurgical analysis	
- Other:	
- If Other, Descr be:	
4. Was the failed item buried under the ground? - If Yes :	
<input type="checkbox"/> 4a. Was failed item considered to be under cathodic protection at the time of the Accident? If Yes - Year protection started:	
4b. Was shielding, tenting, or disbonding of coating evident at the point of the Accident?	
4c. Has one or more Cathodic Protection Survey been conducted at the point of the Accident? If "Yes, CP Annual Survey" – Most recent year conducted: If "Yes, Close Interval Survey" – Most recent year conducted: If "Yes, Other CP Survey" – Most recent year conducted:	
- If No:	
4d. Was the failed item externally coated or painted?	
5. Was there observable damage to the coating or paint in the vicinity of the corrosion?	
<b>- If Internal Corrosion:</b>	
6. Results of visual examination: - Other:	
7. Type of corrosion <i>(select all that apply):</i> -	
- Corrosive Commodity	
- Water drop-out/Acid	
- Microbiological	
- Erosion	
- Other:	
- If Other, Descr be:	
8. The cause(s) of corrosion selected in Question 7 is based on the following <i>(select all that apply):</i> -	
- Field examination	
- Determined by metallurgical analysis	
- Other:	
- If Other, Descr be:	
9. Location of corrosion <i>(select all that apply):</i> -	
- Low point in pipe	
- Elbow	
- Other:	

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- If Other, Describe:	
10. Was the commodity treated with corrosion inhibitors or biocides?	
11. Was the interior coated or lined with protective coating?	
12. Were cleaning/dewatering pigs (or other operations) routinely utilized?	
13. Were corrosion coupons routinely utilized?	
<b>Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in Accident" (from PART C, Question 3) is Tank/Vessel.</b>	
14. List the year of the most recent inspections:	
14a. API Std 653 Out-of-Service Inspection	
- No Out-of-Service Inspection completed	
14b. API Std 653 In-Service Inspection	
- No In-Service Inspection completed	
<b>Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.</b>	
15. Has one or more internal inspection tool collected data at the point of the Accident?	
15a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: -	
- Magnetic Flux Leakage Tool	Most recent year:
- Ultrasonic	Most recent year:
- Geometry	Most recent year:
- Caliper	Most recent year:
- Crack	Most recent year:
- Hard Spot	Most recent year:
- Combination Tool	Most recent year:
- Transverse Field/Triaxial	Most recent year:
- Other	Most recent year:
	Describe:
16. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
If Yes -	
	Most recent year tested:
	Test pressure:
17. Has one or more Direct Assessment been conducted on this segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident::	
	Most recent year conducted:
- If Yes, but the point of the Accident was not identified as a dig site:	
	Most recent year conducted:
18. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?	
18a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	Most recent year conducted:
- Guided Wave Ultrasonic	Most recent year conducted:
- Handheld Ultrasonic Tool	Most recent year conducted:
- Wet Magnetic Particle Test	Most recent year conducted:
- Dry Magnetic Particle Test	Most recent year conducted:
- Other	Most recent year conducted:
	Describe:
<b>G2 - Natural Force Damage</b> - only one sub-cause can be picked from shaded left-handed column	
<b>Natural Force Damage – Sub-Cause:</b>	Temperature
<b>- If Earth Movement, NOT due to Heavy Rains/Floods:</b>	
1. Specify:	

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- If Other, Descr be:	
<b>- If Heavy Rains/Floods:</b>	
2. Specify:	
- If Other, Descr be:	
<b>- If Lightning:</b>	
3. Specify:	
<b>- If Temperature:</b>	
4. Specify:	Frost Heave
- If Other, Descr be:	,,
<b>- If Other Natural Force Damage:</b>	
5. Describe:	
<b>Complete the following if any Natural Force Damage sub-cause is selected.</b>	
6. Were the natural forces causing the Accident generated in conjunction with an extreme weather event?	No
6a. If Yes, specify: <i>(select all that apply)</i>	
- Hurricane	
- Tropical Storm	
- Tornado	
- Other	
- If Other, Descr be:	
<b>G3 - Excavation Damage - only one sub-cause can be picked from shaded left-hand column</b>	
<b>Excavation Damage – Sub-Cause:</b>	
<b>- If Previous Damage due to Excavation Activity: Complete Questions 1-5 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.</b>	
1. Has one or more internal inspection tool collected data at the point of the Accident?	
1a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: -	
- Magnetic Flux Leakage	
Most recent year conducted:	
- Ultrasonic	
Most recent year conducted:	
- Geometry	
Most recent year conducted:	
- Caliper	
Most recent year conducted:	
- Crack	
Most recent year conducted:	
- Hard Spot	
Most recent year conducted:	
- Combination Tool	
Most recent year conducted:	
- Transverse Field/Triaxial	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Descr be:	
2. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained?	
3. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
- If Yes:	
Most recent year tested:	
Test pressure (psig):	
4. Has one or more Direct Assessment been conducted on the pipeline segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident:	
Most recent year conducted:	
- If Yes, but the point of the Accident was not identified as a dig site:	
Most recent year conducted:	
5. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?	
5a. If Yes, for each examination, conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	
Most recent year conducted:	
- Guided Wave Ultrasonic	
Most recent year conducted:	

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- Handheld Ultrasonic Tool	
Most recent year conducted:	
- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
<b>Complete the following if Excavation Damage by Third Party is selected as the sub-cause.</b>	
6. Did the operator get prior notification of the excavation activity?	
6a. If Yes, Notification received from: <i>(select all that apply)</i> -	
- One-Call System	
- Excavator	
- Contractor	
- Landowner	
<b>Complete the following mandatory CGA-DIRT Program questions if any Excavation Damage sub-cause is selected.</b>	
7. Do you want PHMSA to upload the following information to CGA-DIRT (www.cga-dirt.com)?	
8. Right-of-Way where event occurred: <i>(select all that apply)</i> -	
- Public	
- If "Public", Specify:	
- Private	
- If "Private", Specify:	
- Pipeline Property/Easement	
- Power/Transmission Line	
- Railroad	
- Dedicated Public Utility Easement	
- Federal Land	
- Data not collected	
- Unknown/Other	
9. Type of excavator:	
10. Type of excavation equipment:	
11. Type of work performed:	
12. Was the One-Call Center notified?	
12a. If Yes, specify ticket number:	
12b. If this is a State where more than a single One-Call Center exists, list the name of the One-Call Center notified:	
13. Type of Locator:	
14. Were facility locate marks visible in the area of excavation?	
15. Were facilities marked correctly?	
16. Did the damage cause an interruption in service?	
16a. If Yes, specify duration of the interruption (hours)	
17. Description of the CGA-DIRT Root Cause <i>(select only the one predominant first level CGA-DIRT Root Cause and then, where available as a choice, the one predominant second level CGA-DIRT Root Cause as well):</i>	
Root Cause:	
- If One-Call Notification Practices Not Sufficient, specify:	
- If Locating Practices Not Sufficient, specify:	
- If Excavation Practices Not Sufficient, specify:	
- If Other/None of the Above, explain:	
<b>G4 - Other Outside Force Damage - only one sub-cause can be selected from the shaded left-hand column</b>	
<b>Other Outside Force Damage – Sub-Cause:</b>	
<b>- If Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation:</b>	
1. Vehicle/Equipment operated by:	
<b>- If Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring:</b>	
2. Select one or more of the following IF an extreme weather event was a factor:	
- Hurricane	
- Tropical Storm	
- Tornado	
- Heavy Rains/Flood	
- Other	
- If Other, Describe:	
<b>- If Previous Mechanical Damage NOT Related to Excavation: Complete Questions 3-7 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.</b>	
3. Has one or more internal inspection tool collected data at the point of	

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the Accident?	
3a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:	
- Magnetic Flux Leakage	Most recent year conducted:
- Ultrasonic	Most recent year conducted:
- Geometry	Most recent year conducted:
- Caliper	Most recent year conducted:
- Crack	Most recent year conducted:
- Hard Spot	Most recent year conducted:
- Combination Tool	Most recent year conducted:
- Transverse Field/Triaxial	Most recent year conducted:
- Other	Most recent year conducted:
	Descr be:
4. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained?	
5. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
- If Yes:	Most recent year tested:
	Test pressure (psig):
6. Has one or more Direct Assessment been conducted on the pipeline segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident:	Most recent year conducted:
- If Yes, but the point of the Accident was not identified as a dig site:	Most recent year conducted:
7. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?	
7a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	Most recent year conducted:
- Guided Wave Ultrasonic	Most recent year conducted:
- Handheld Ultrasonic Tool	Most recent year conducted:
- Wet Magnetic Particle Test	Most recent year conducted:
- Dry Magnetic Particle Test	Most recent year conducted:
- Other	Most recent year conducted:
	Descr be:
<b>- If Intentional Damage:</b>	
8. Specify:	
	- If Other, Descr be:
<b>- If Other Outside Force Damage:</b>	
9. Describe:	
<b>G5 - Material Failure of Pipe or Weld</b> - only one <b>sub-cause</b> can be selected from the shaded left-hand column	
<b>Use this section to report material failures ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is "Pipe" or "Weld."</b>	
<b>Material Failure of Pipe or Weld – Sub-Cause:</b>	
1. The sub-cause shown above is based on the following: <i>(select all that apply)</i>	
- Field Examination	
- Determined by Metallurgical Analysis	
- Other Analysis	
	- If "Other Analysis", Descr be:
- Sub-cause is Tentative or Suspected; Still Under Investigation (Supplemental Report required)	

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<b>- If Construction, Installation, or Fabrication-related:</b>	
2. List contributing factors: <i>(select all that apply)</i>	
- Fatigue or Vibration-related	Specify:
	- If Other, Describe:
- Mechanical Stress:	
- Other	
	- If Other, Describe:
<b>- If Environmental Cracking-related:</b>	
3. Specify:	
- If Other - Describe:	
<b>Complete the following if any Material Failure of Pipe or Weld sub-cause is selected.</b>	
4. Additional factors: <i>(select all that apply)</i> :	
- Dent	
- Gouge	
- Pipe Bend	
- Arc Burn	
- Crack	
- Lack of Fusion	
- Lamination	
- Buckle	
- Wrinkle	
- Misalignment	
- Burnt Steel	
- Other:	
	- If Other, Describe:
5. Has one or more internal inspection tool collected data at the point of the Accident?	
5a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:	
- Magnetic Flux Leakage	Most recent year run:
- Ultrasonic	Most recent year run:
- Geometry	Most recent year run:
- Caliper	Most recent year run:
- Crack	Most recent year run:
- Hard Spot	Most recent year run:
- Combination Tool	Most recent year run:
- Transverse Field/Triaxial	Most recent year run:
- Other	Most recent year run:
	Describe:
6. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
- If Yes:	Most recent year tested:
	Test pressure (psig):
7. Has one or more Direct Assessment been conducted on the pipeline segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident -	Most recent year conducted:
- If Yes, but the point of the Accident was not identified as a dig site -	Most recent year conducted:
8. Has one or more non-destructive examination(s) been conducted at the point of the Accident since January 1, 2002?	
8a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted: -	
- Radiography	Most recent year conducted:
- Guided Wave Ultrasonic	Most recent year conducted:
- Handheld Ultrasonic Tool	Most recent year conducted:

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- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Descr be:	
<b>G6 – Equipment Failure</b> - only one <b>sub-cause</b> can be selected from the shaded left-hand column	
<b>Equipment Failure – Sub-Cause:</b>	
<b>- If Malfunction of Control/Relief Equipment:</b>	
1. Specify: <i>(select all that apply)</i> -	
- Control Valve	
- Instrumentation	
- SCADA	
- Communications	
- Block Valve	
- Check Valve	
- Relief Valve	
- Power Failure	
- Stopple/Control Fitting	
- ESD System Failure	
- Other	
- If Other – Descr be:	
<b>- If Pump or Pump-related Equipment:</b>	
2. Specify:	
- If Other – Descr be:	
<b>- If Threaded Connection/Coupling Failure:</b>	
3. Specify:	
- If Other – Descr be:	
<b>- If Non-threaded Connection Failure:</b>	
4. Specify:	
- If Other – Descr be:	
<b>- If Other Equipment Failure:</b>	
5. Describe:	
<b>Complete the following if any Equipment Failure sub-cause is selected.</b>	
6. Additional factors that contributed to the equipment failure: <i>(select all that apply)</i>	
- Excessive vibration	
- Overpressurization	
- No support or loss of support	
- Manufacturing defect	
- Loss of electricity	
- Improper installation	
- Mismatched items (different manufacturer for tubing and tubing fittings)	
- Dissimilar metals	
- Breakdown of soft goods due to compatibility issues with transported commodity	
- Valve vault or valve can contributed to the release	
- Alarm/status failure	
- Misalignment	
- Thermal stress	
- Other	
- If Other, Descr be:	
<b>G7 - Incorrect Operation</b> - only one <b>sub-cause</b> can be selected from the shaded left-hand column	
<b>Incorrect Operation – Sub-Cause:</b>	
<b>- If Tank, Vessel, or Sump/Separator Allowed or Caused to Overfill or Overflow</b>	
1. Specify:	
- If Other, Descr be:	
<b>- If Other Incorrect Operation</b>	

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2. Describe:	
<b>Complete the following if any Incorrect Operation sub-cause is selected.</b>	
3. Was this Accident related to ( <i>select all that apply</i> ): -	
- Inadequate procedure	
- No procedure established	
- Failure to follow procedure	
- Other:	
- If Other, Describe:	
4. What category type was the activity that caused the Accident?	
5. Was the task(s) that led to the Accident identified as a covered task in your Operator Qualification Program?	
5a. If Yes, were the individuals performing the task(s) qualified for the task(s)?	
<b>G8 - Other Accident Cause</b> - only one <b>sub-cause</b> can be selected from the shaded left-hand column	
<b>Other Accident Cause – Sub-Cause:</b>	
<b>- If Miscellaneous:</b>	
1. Describe:	
<b>- If Unknown:</b>	
2. Specify:	
<b>PART H - NARRATIVE DESCRIPTION OF THE ACCIDENT</b>	
<p>On 8/25/15 at approximately 10:15am a small amount of crude oil was discovered near the fill line to Tank 703 at Kiantone Pipeline's West Seneca Terminal. The tank had been empty and out of service for over a year for an API 653 inspection. All of the tank's ancillary piping had been isolated from the tank, but remained full and under low pressure (est. 15 psi.)</p> <p>Upon discovery of the oil, facility personnel quickly excavated approximately 30 feet of the buried fill line but only a small amount of oil was encountered. Upon further investigation and testing, a small break was found in a misshaped 2-inch drain-up line connected to the tank fill line. The break was not initially apparent because the pipe coating served to mask the leak. SMEs concluded that freeze/thaw cycles likely precipitated the damage to the idle drain-up line. SMEs could not determine the ultimate stressor that had caused the misshaped pipe to finally release (i.e. no apparent mechanical force or pressure.)</p> <p>The damaged drain up line was disconnected and removed, and a pressure rated clamp was installed over the connection point.</p>	
<b>PART I - PREPARER AND AUTHORIZED SIGNATURE</b>	
Preparer's Name	Daniel Sobina
Preparer's Title	Regulatory Compliance Manager
Preparer's Telephone Number	8147264846
Preparer's E-mail Address	dansobina@urc.com
Preparer's Facsimile Number	8147264798
Authorized Signer Name	James Hare
Authorized Signer Title	Pipeline Manager
Authorized Signer Telephone Number	7166752767
Authorized Signer Email	jhare@urc.com
Date	09/17/2015

This report is forwarded for your situational awareness. CMC 6-1863

NATIONAL RESPONSE CENTER 1-800-424-8802

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Incident Report # 1126637

INCIDENT DESCRIPTION

\*Report taken by: MST1 HECTOR FUENTES at 12:03 on 25-AUG-15

Incident Type: PIPELINE

Incident Cause: EQUIPMENT FAILURE

Affected Area:

Incident occurred on 25-AUG-15 at 10:15 local incident time.

Affected Medium: SOIL

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REPORTING PARTY

Name: DANIEL SOBINA

Organization: KIANTONE PIPELINE

Address: 550 MEYER ROAD  
WEST SENECA, NY 14224

PRIMARY Phone: (814)6881387

Type of Organization: PRIVATE ENTERPRISE

---

SUSPECTED RESPONSIBLE PARTY

Name: DANIEL SOBINA

Organization: KIANTONE PIPELINE

Address: 550 MEYER ROAD  
WEST SENECA, NY 14224

PRIMARY Phone: (814)6881387

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INCIDENT LOCATION

550 MEYER ROAD County: ERIE

City: WEST SENECA State: NY Zip: 14224

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RELEASED MATERIAL(S)

CHRIS Code: OIL Official Material Name: OIL: CRUDE

Also Known As:

Qty Released: 5 GALLON(S)

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DESCRIPTION OF INCIDENT

THE CALLER IS REPORTING THAT A PIPELINE INSIDE THE FACILITY HAD A PINHOLE AND DISCHARGED OIL INTO SOIL.

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SENSITIVE INFORMATION

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INCIDENT DETAILS

Pipeline Type: TRANSMISSION  
DOT Regulated: YES  
Pipeline Above/Below Ground: BELOW  
Exposed or Under Water: NO  
Pipeline Covered: UNKNOWN

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IMPACT

Fire Involved: NO Fire Extinguished: UNKNOWN

INJURIES: NO Hospitalized:    Empl/Crew:    Passenger:  
FATALITIES: NO Empl/Crew:    Passenger:    Occupant:  
EVACUATIONS:NO Who Evacuated:    Radius/Area:

Damages: NO

	Hours	Direction of	
Closure Type Description of Closure	Closed	Closure	
N			
Air:			
N		Major	
Road:		Artery:N	
N			
Waterway:			
N			
Track:			

Environmental Impact: UNKNOWN

Media Interest: NONE Community Impact due to Material:

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REMEDIAL ACTIONS

SOIL WILL BE REMOVED, ABSORBENTS APPLIED, VAC TRUCK USED,  
CONTRACTOR HAS BEEN HIRED.

Release Secured: YES

Release Rate:

Estimated Release Duration:

WEATHER

Weather: SUNNY, °F

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ADDITIONAL AGENCIES NOTIFIED

Federal:

State/Local: NYDEC

State/Local On Scene:

State Agency Number: 1505600

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NOTIFICATIONS BY NRC

CENTERS FOR DISEASE CONTROL (GRASP)

25-AUG-15 12:16 (770)4887100

DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)

25-AUG-15 12:16 (202)3661863

U.S. EPA II (MAIN OFFICE)

(732)3214370

NTL ENVMTL EMERG CENTRE CANADA (MAIN OFFICE)

25-AUG-15 12:16 (819)9973742

NATIONAL INFRASTRUCTURE COORD CTR (MAIN OFFICE)

25-AUG-15 12:16 (202)2829201

NJ OFC HMLND SECURITY & PREPAREDNES (COMMAND CENTER)

25-AUG-15 12:16 (609)9636817

NJ STATE POLICE (MARINE SERVICES BUREAU)

25-AUG-15 12:16 (609)9636900

NOAA RPTS FOR NY (MAIN OFFICE)

25-AUG-15 12:16 (206)5264911

NATIONAL RESPONSE CENTER HQ (AUTOMATIC REPORTS)

25-AUG-15 12:16 (202)2671136

NY STATE DEC SPILL HOTLINE (MAIN OFFICE)

25-AUG-15 12:16 (518)4577362

PIPELINE & HAZMAT SAFETY ADMIN (OFFICE OF PIPELINE SAFETY (AUTO))

25-AUG-15 12:16 (202)3660568

SECTOR BUFFALO (INTEL OFFICE)

25-AUG-15 12:16 (716)8439377

USCG DISTRICT 1 (COMMAND CENTER)

25-AUG-15 12:16 (617)2238555

USCG DISTRICT 9 (COMMAND CENTER)

25-AUG-15 12:16 (216)9026109

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ADDITIONAL INFORMATION

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\*\*\* END INCIDENT REPORT #1126637 \*\*\*

Report any problems by calling 1-800-424-8802

PLEASE VISIT OUR WEB SITE AT <http://www.nrc.uscg.mil>

## 151195 Appendix D - NRC Report 1126637

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## **Appendix E**

### **Kiantone Failure Investigation Report**

This document is on file at PHMSA